



ROTA NCA

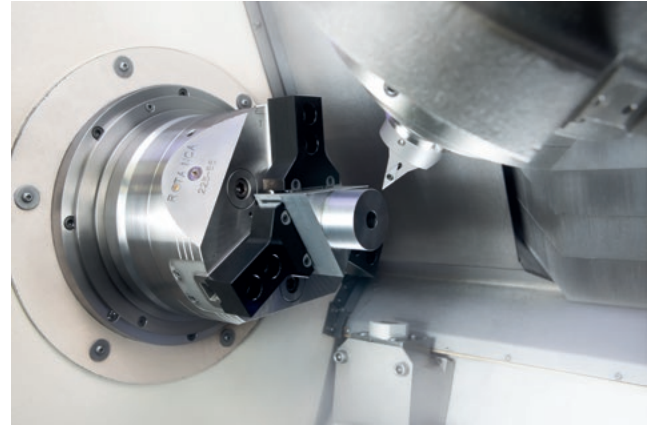
Sealed power lathe chuck for
modern turn/mill centers

Hand in hand for tomorrow

Power lathe chuck with sophisticated sealing system for permanent lubrication and constant clamping forces

Field of application

Constant clamping forces, minimum maintenance effort, as well as a high energy efficiency and productivity are ensured with the versatile ROTA NCA power lathe chuck. The geometry of the chuck body makes ensures a good accessibility of the tools, meaning that the ROTA NCA can be also used on modern turn/mill centers.



Advantages – Your benefits

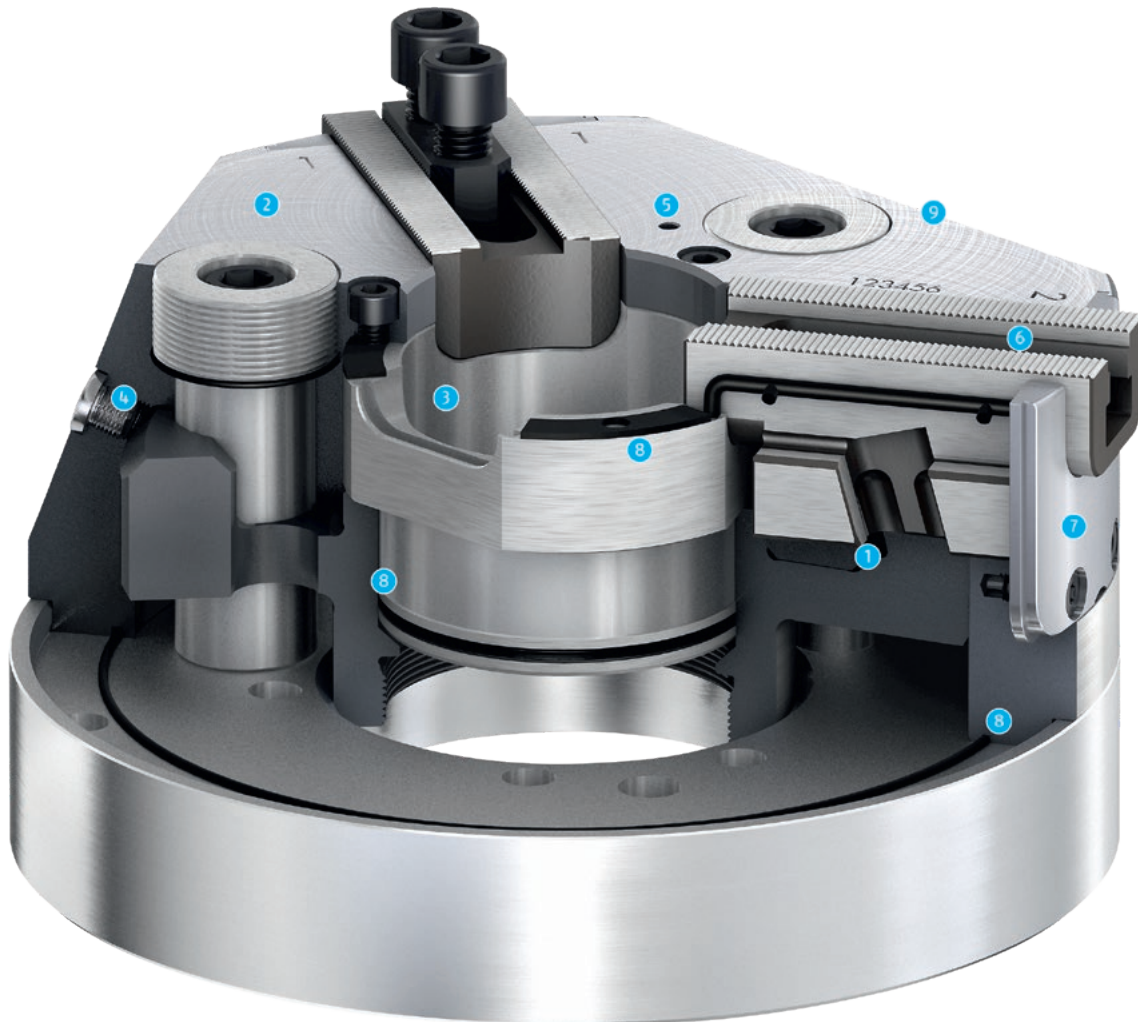
- + Sealed power lathe chuck**
For significantly longer maintenance intervals
- + Permanent grease lubrication**
For consistently high clamping forces
- + Precision wedge-hook power lathe chuck for highest quality requirements**
Allows excellent machining processes
- + High efficiency of the wedge hook system**
Process-reliable clamping due to high clamping forces
- + Low chuck weight**
Fast acceleration and deceleration operations shorten the cycle times
- + Base jaws with fine serration 1.5 mm x 60° and 1/16" x 90° as standard**
High flexibility in the range of top jaws
- + All functional parts are ground and hardened**
Ensures a long life span

Technical data

Description	Max. RPM [min ⁻¹]	Max. clamping force [kN]	Max. actuating force [kN]	Stroke/jaw [mm]	Piston stroke [mm]	Through-hole [mm]
ROTA NCA 160-32	5500	45	20	4	15	32
ROTA NCA 200-52	5000	72	32	5.3	20	52
ROTA NCA 225-66	5000	100	45	5.3	20	66
ROTA NCA 280-86	4000	140	63	5.3	20	86
ROTA NCA 330-104	3500	160	72	5.3	20	104

Function of ROTA NCA

The axially movable piston transfers the force to the base jaw and generates a radial jaw movement synchronized with the rotational axis. The innovative sealing system located on the base jaws, prevents grease from being rinsed out, and the clamping force from being lost gradually.



- ❶ **Wedge hook drive in ring piston design**
Offers constantly high clamping forces in operation
- ❷ **Hardened and extremely rigid base body**
Therefore a longer life span at highest precision. Even with maximum clamping force
- ❸ **Large through-hole**
For machining of all commercially available raw pipe material diameters
- ❹ **Ventilation hole**
To drain off excess grease
- ❺ **Mounting threads**
For workpiece stops
- ❻ **Base jaw serration**
Available in inch or metric sizes
- ❼ **Cover**
Serves to seal the lathe chuck and additionally as base jaw safety feature
- ❽ **Sealing of the lathe chuck**
For significantly longer maintenance intervals
- ❾ **Weight-optimized design**
For great economy in daily use

Innovative sealing system

An innovative sealing system – consisting of a specially designed gasket – prevents grease from being rinsed out during machining. This in turn prevents a gradual loss of clamping force. Advantage: The chuck is additionally protected against the penetration of dirt and chips.

① Gasket

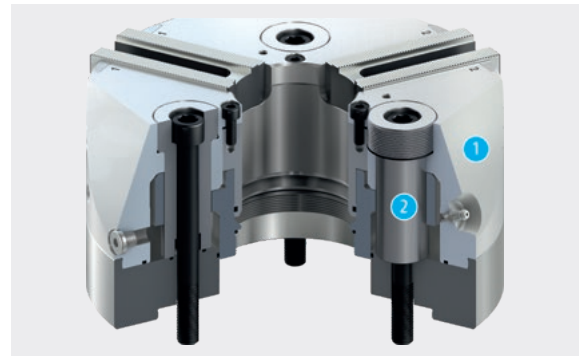


Inlays at the mounting holes

In order to further increase the tightness and stiffness of the chuck, special inlays are installed in the area of the fastening screws.

① Chuck body

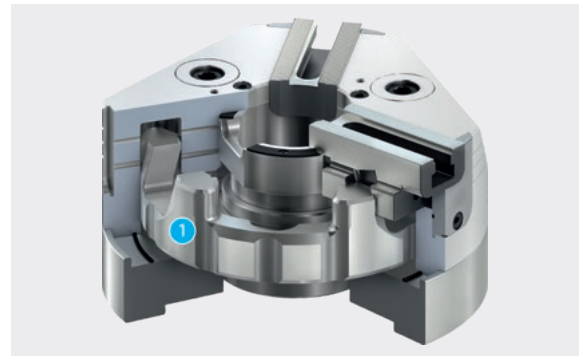
② Inlay



Long and precise piston guidance

For high clamping repeatability and long service life. All functional components used for force transmission are hardened and ground.

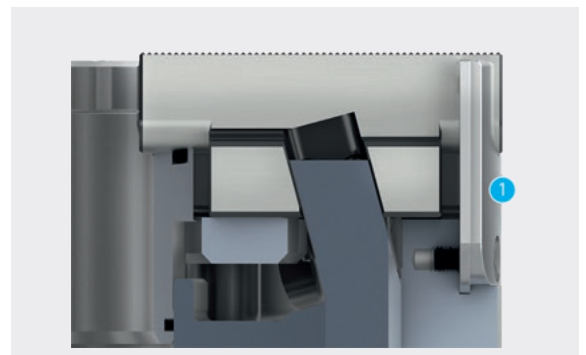
① Ring piston



Base jaw safety feature

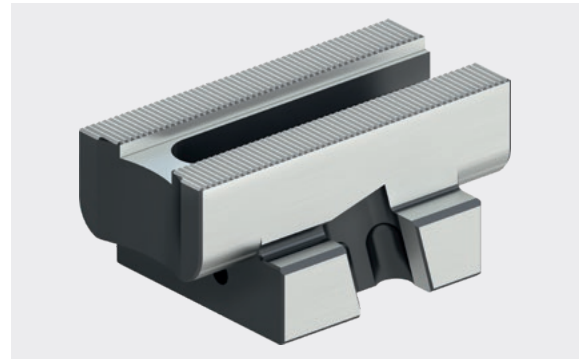
The cover elements form the end piece of the base jaw guidance. Even in the event of a crash it is avoided e.g. in the case of a component failure that the base jaws will be ejected out of the chuck.

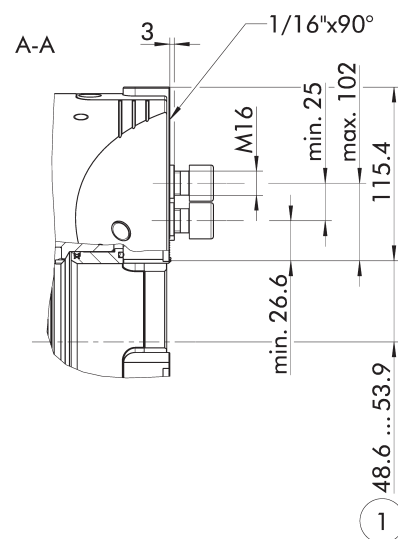
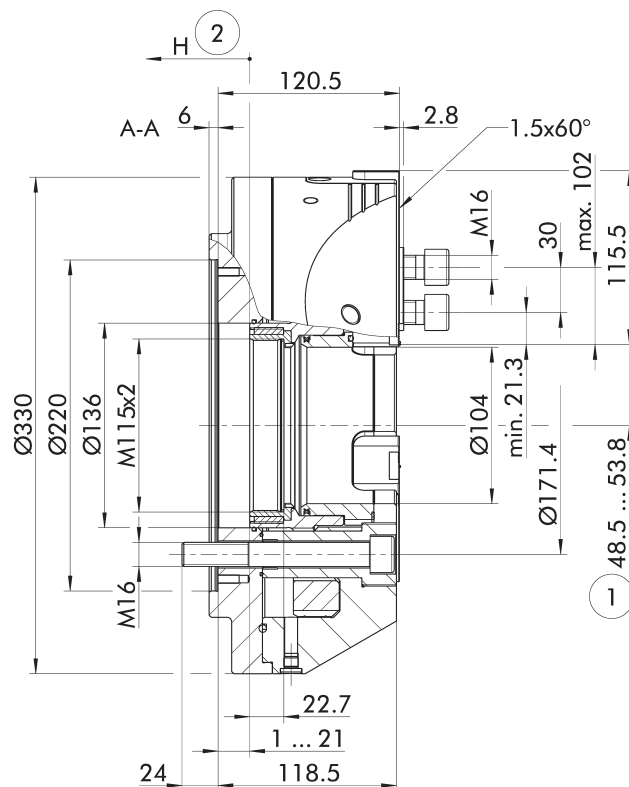
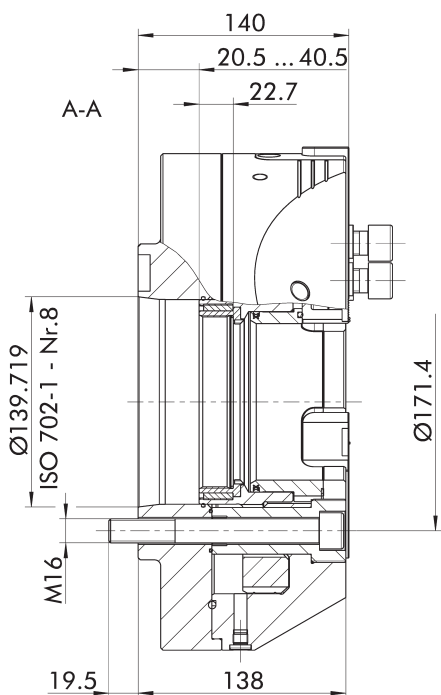
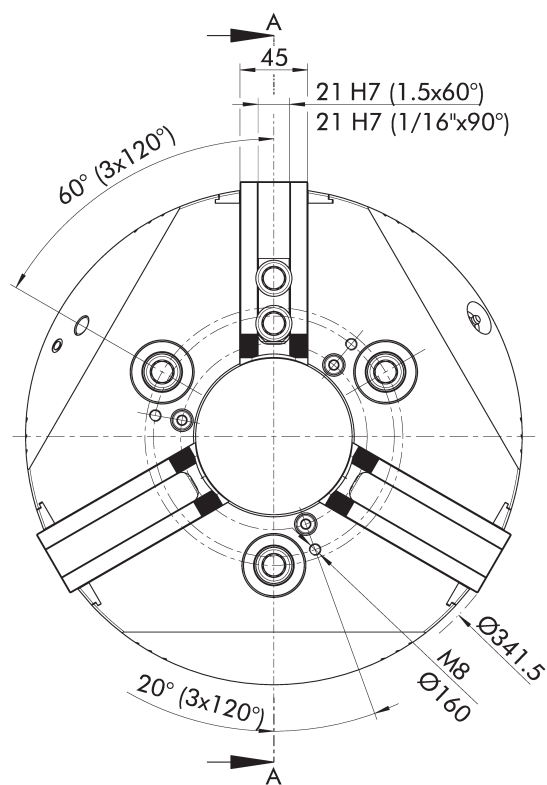
① Cover



Absolute flexibility of the base jaw

Select between two standard jaw interfaces 1/16" x 90° or 1.5 mm x 60° with the benefit of being able to continue using your existing top jaws on the new SCHUNK lathe chuck.





Subject to technical changes.

① Distance to center of first tooth

② Piston stroke direction

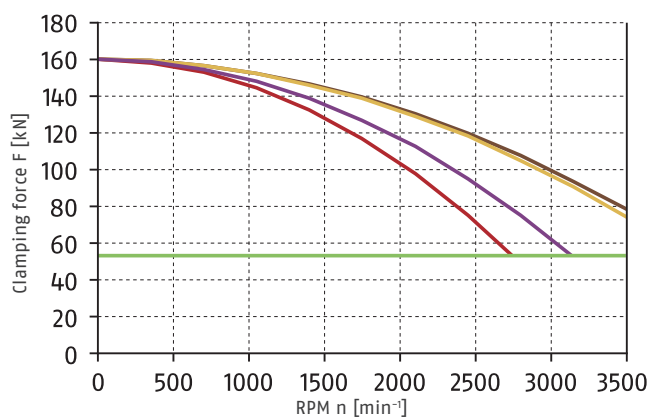
Technical data

Spindle type	Spindle size	ID	Serration	Max. RPM [min ⁻¹]	Max. clamping force [kN]	Max. actuating force [kN]	Stroke/jaw [mm]	Piston stroke (H) [mm]	Moment of inertia [kgm ²]	Weight [kg]
ISO 702-4	Nr. 8 (Z220)	1342606	1/16" x 90°	3500	160	72	5.3	20	0.85	56.6
ISO 702-1	Nr. 8	1342607	1/16" x 90°	3500	160	72	5.3	20	0.95	62.7
ISO 702-4	Nr. 8 (Z220)	1342608	1.5 mm x 60°	3500	160	72	5.3	20	0.85	56.7
ISO 702-1	Nr. 8	1342609	1.5 mm x 60°	3500	160	72	5.3	20	0.95	62.8

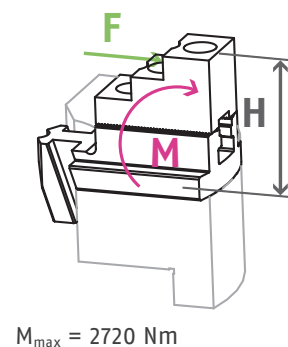
Scope of delivery

Chuck, T-nuts with screws, chuck mounting screws, mounting wrench for turnable threaded ring, eye bolt, and operating manual

Clamping force-RPM-diagram

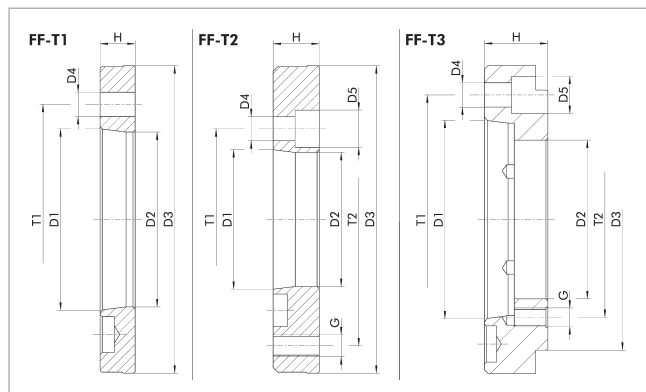


Load of base jaw guidance



Adapter plates

Z-mount on short taper ISO 702-1



Technical data

Description	Adapter plate type	ID	Suitable for	D1	D2	D3	D4	D5	G	H	T1	T2
				[mm]			[mm]	[mm]		[mm]	[mm]	[mm]
FF-T2 Z220-A5	FF-T2	0805002	ROTA NCA 330-104	Nr. 5	79.6	Z220	11 (6 x 60°)	17	M16 (6 x 60°) M16 (2 x 180°)	28	104.8	171.4
FF-T2 Z220-A6	FF-T2	0805003	ROTA NCA 330-104	Nr. 6	103.2	Z220	13 (6 x 60°)	20	M16 (6 x 60°) M16 (2 x 180°)	28	133.4	171.4
FF-T1 Z220-A8	FF-T1	0803002	ROTA NCA 330-104	Nr. 8	136.2	Z220	17 (6 x 60°) 17 (2 x 180°)			19	171.4	
FF-T3 Z220-A11	FF-T3	0803003	ROTA NCA 330-104	Nr. 11	130	Z220	21 (6 x 60°)	32	M16 (12 x 30°)	50	235	171.4

Direct adapter plates FF-T1

Direct adapter plates are used if the spindle mounting bolt circle has the same size as the lathe chuck mounting bolt circle. The adapter plate has to be mounted on to the spindle together with the lathe chuck. The adapter plate is preassembled on the lathe chuck.

Reduction adapter plates FF-T2

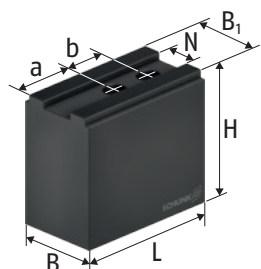
Reduction adapter plates are used if the mounting bolt circle of the spindle is smaller than the lathe chuck mounting bolt circle. The adapter plate is first mounted on the spindle and then the lathe chuck is mounted on the adapter plate.

Expansion adapter plates FF-T3

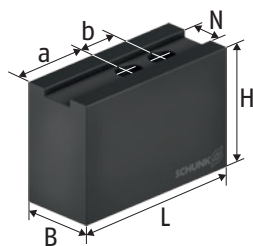
Expansion adapter plates are used if the mounting bolt circle of the spindle is larger than the lathe chuck mounting bolt circle. The adapter plate is first mounted on the spindle and then the lathe chuck is mounted on the adapter plate.

Soft top jaws

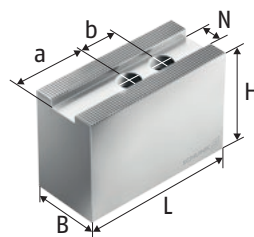
with fine serration 60°



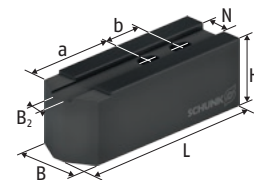
SKN
Soft top jaws



KM-WB
Soft top jaws



KM-WBAL
Soft top jaws



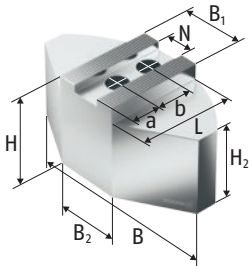
KM-WBL
Soft top jaws

Technical data

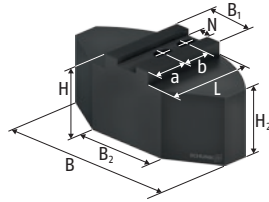
Chuck type	Description	ID	N [mm]	B [mm]	B1 [mm]	H [mm]	L [mm]	a [mm]	b [mm]	Screws	m/SET [kg]
ROTA NCA 330-104	KM-WBL 121	0132604	21	50		50	145	85	30	M16	6.9
ROTA NCA 330-104	KM-WBL 125	0132618	21	50		100	145	85	30	M16	13.9
ROTA NCA 330-104	KM-WB 126	0132131	21	50		60	129	60	30	M16	7.6
ROTA NCA 330-104	KM-WB 127	0132148	21	50		100	140	71	30	M16	13.8
ROTA NCA 330-104	KM-WB 128	0132154	21	50		80	129	60	30	M16	10.1
ROTA NCA 330-104	KM-WBAL 121	0132525	21	50		80	130	60	30	M16	3.8
ROTA NCA 330-104	SKN 350	0127107	21	50	49	80	120	67	28	M16	9.1

Our complete range of chuck jaws can be found online in our Chuck Jaw Quickfinder and on schunk.com

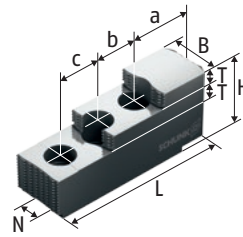
Hard stepped top jaws, Full grip jaws with fine serration 60°



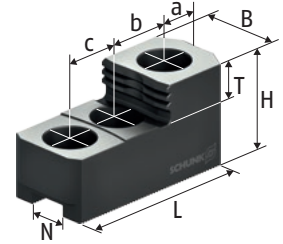
KMWB-SA
Full grip jaws



KMWB-SM
Full grip jaws



SHB-J
Hard stepped top jaws



SHB-J
Hard stepped top jaws

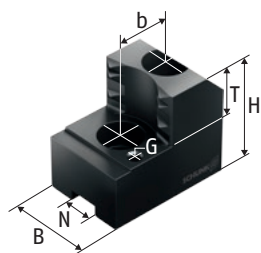
Technical data

Chuck type	Description	ID	N [mm]	B [mm]	B1 [mm]	H [mm]	H2 [mm]	L [mm]	T [mm]	a [mm]	b [mm]	c [mm]	Screws	m/SET [kg]
ROTA NCA 330-104	KMWB-SA 301	0132804	21	240	50	78	63	117		45	30		M16	10.9
ROTA NCA 330-104	KMWB-SM 301	0132704	21	240	50	70	55	110		45	30		M16	26.4
ROTA NCA 330-104	SHB-J 126	0133105	21	50		62		128	14	46	30	30	M16	5.2
ROTA NCA 330-104	SHB-J 122	0133113	21	50		52		104	18	20	30	30	M16	3.3

Our complete range of chuck jaws can be found online in our Chuck Jaw Quickfinder and on [schunk.com](https://www.schunk.com)

Claw jaws

with fine serration 60°



SZAJ
Claw jaws

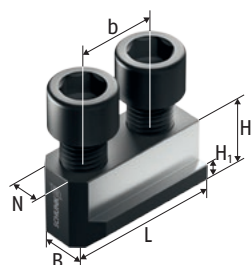
Technical data

Chuck type	Clamping range ØD	Swing diameter SDmax	Description	ID	N	B	H	T	G	b	Screws	m/SET
	[mm]	[mm]			[mm]	[mm]	[mm]	[mm]		[mm]		[kg]
ROTA NCA 330-104			SZAJ 30-5	0138131	21	50	65	25	M8	30	M16	3.8
ROTA NCA 330-104	102 - 208	379	SZAJ 30-6	0138132	21	50	65	25	M8	30	M16	4.1
ROTA NCA 330-104	168 - 275	368	SZAJ 30-7	0138133	21	50	65	25	M8	30	M16	3.4
ROTA NCA 330-104	232 - 339	412	SZAJ 30-8	0138134	21	50	65	25	M8	30	M16	4.8

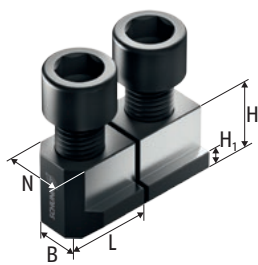
Our complete range of chuck jaws can be found online in our Chuck Jaw Quickfinder and on [schunk.com](https://www.schunk.com)

T-nut

with fine serration 60°



NJ
T-nut



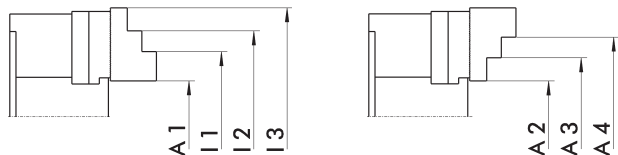
NJ sawn
T-nut

Chuck type	Description	ID	H	H1	b	G	Cyl.-screw	Max. adm. tightening torque
			[mm]	[mm]	[mm]			[Nm]
ROTA NCA 330-104	NJ 124 gesägt/sawn	0146000	28	11.5		M16	M16 x 40	150
ROTA NCA 330-104	NJ 124	0146123	28	11.5	30	M16	M16 x 40	150

Our complete range of chuck jaws can be found online in our Chuck Jaw Quickfinder and on [schunk.com](https://www.schunk.com)

Hard stepped top jaws

with fine serration 60°



Jaw position I

Jaw position II

O.D. clamping

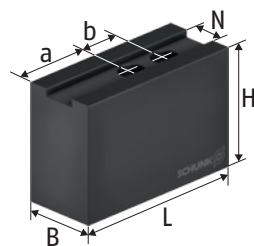
Chuck type	Description	ID	A1 [mm]	A2 [mm]	A3 [mm]	A4 [mm]
ROTA NCA 330-104	SHB-J 126	0133105	20 - 108	43 - 115	135 - 207	227 - 299

I.D. clamping

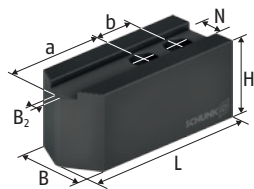
Chuck type	Description	ID	I1 [mm]	I2 [mm]	I3 [mm]
ROTA NCA 330-104	SHB-J 126	0133105	89 - 179	181 - 271	273 - 363

Soft top jaws

with fine serration 90°



CWB
Soft top jaws



SWBL
Soft top jaws

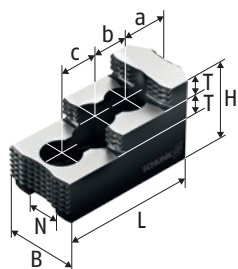
Technical data

Chuck type	Description	ID	N [mm]	B [mm]	H [mm]	L [mm]	a [mm]	b [mm]	Screws	m/SET [kg]
ROTA NCA 330-104	SWBL 315	0120156	21	50	50	140	82	28	M16	6.5
ROTA NCA 330-104	CWB 251	0100012	21	50	60	95	52	28	M16	5.2
ROTA NCA 330-104	SWB-FR 315	0120406	21	50	60	105	65	25	M16	6.0

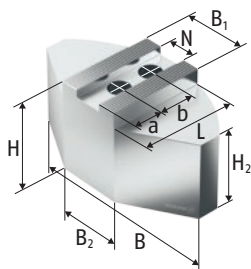
Our complete range of chuck jaws can be found online in our Chuck Jaw Quickfinder and on [schunk.com](https://www.schunk.com)

Hard stepped top jaws, Full grip jaws

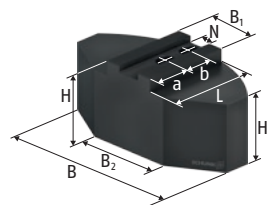
with fine serration 90°



SHB
Hard stepped top jaws



SWB-SA
Full grip jaws



SWB-SM
Full grip jaws

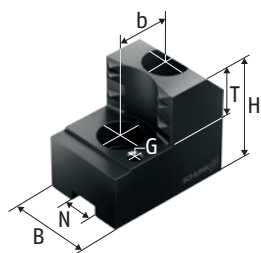
Technical data

Chuck type	Description	ID	N [mm]	B [mm]	B1 [mm]	H [mm]	H2 [mm]	L [mm]	T [mm]	a [mm]	b [mm]	c [mm]	Screws	m/SET [kg]
ROTA NCA 330-104	SWB-SA 315	0170104	21	240	50	78	63	117		70	28		M16	11.0
ROTA NCA 330-104	SWB-SM 315	0169104	21	240	50	70	55	110		60	28		M16	26.6
ROTA NCA 330-104	SHB 315	0121111	21	50		58		128	14	46	30	30	M16	4.6

Our complete range of chuck jaws can be found online in our Chuck Jaw Quickfinder and on schunk.com

Claw jaws

with fine serration 90°



SZA
Claw jaws

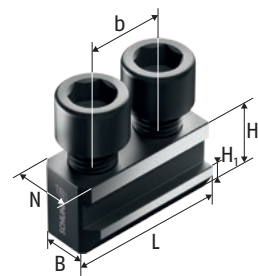
Technical data

Chuck type	Clamping range ØD	Swing diameter SDmax	Description	ID	N	B	H	T	G	b	Screws	m/SET
	[mm]	[mm]			[mm]	[mm]	[mm]	[mm]		[mm]		[kg]
ROTA NCA 330-104	50 - 156	363	SZA 31-10	0138184	21	50	58	25	M8	28	M16	3.4
ROTA NCA 330-104	108 - 213	363	SZA 31-11	0138185	21	50	58	25	M8	28	M16	3.4
ROTA NCA 330-104	174 - 280	363	SZA 31-12	0138186	21	50	58	25	M8	28	M16	3.2
ROTA NCA 330-104	238 - 344	420	SZA 31-13	0138187	21	50	58	25	M8	28	M16	4.7

Our complete range of chuck jaws can be found online in our Chuck Jaw Quickfinder and on [schunk.com](https://www.schunk.com)

T-nut

with fine serration 90°



NKA
T-nut



NKS
T-nut

Chuck type	Description	ID	H	H1	b	G	Cyl.-screw	Max. adm. tightening torque
			[mm]	[mm]	[mm]			[Nm]
ROTA NCA 330-104	NKA 3	0145105	26.5	10	28	M16	M16 x 35	150
ROTA NCA 330-104	NKS 3	0143107	26.5	10		M16	M16 x 35	150

Our complete range of chuck jaws can be found online in our Chuck Jaw Quickfinder and on schunk.com

Grease

LINOMAX plus

High-performance grease as standard for regularly lubricating SCHUNK manual and power lathe chucks and steady rests.



Bundle	Description	ID
Cartridge	LINOMAX plus cartridge	1342585
Can	LINOMAX plus can	1342586
Bucket	LINOMAX plus bucket	1342587

Grease gun

Auxiliary tools for lubrication of all kinds of SCHUNK products. The grease gun can be used for cartridges of all types of SCHUNK grease.



Bundle	Description	ID
Cartridge	Grease gun	9900543

Accessories

Clamping force tester

For measuring the jaw clamping force of 2, 3 and 6-jaw chucks up to 6,000 RPM .



Suitable for	Description	ID
ROTA NCA 330-104	IFT Set	1404235

Mounting wrench

For power lathe chucks with turnable threaded rings as wrench design with driving pins that snap into the threaded ring.



Suitable for	Description	ID
ROTA NCA 330-104	SSH-MN Ø104-228	1375097



H.-D. SCHUNK GmbH & Co.
Spanntechnik KG

Lothringer Str. 23
D-88512 Mengen
Tel. +49-7572-7614-1300
Fax +49-7572-7614-1039
CMM@de.schunk.com
schunk.com